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Department of Biomedical Engineering  
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**EDUCATION**

- Ph.D. **Case Western Reserve University**, Ph.D., Biomedical Engineering, May, 1999.  
Dissertation title: “Functionally selective stimulation of peripheral nerves: Electrodes that alter nerve geometry”.
- B.S. **Michigan Technological University**, B.S., Electrical Engineering, May, 1992.

***Other Professional Training***

Medical Device Software: A Practical Guide to Software Process Control and Documentation, Underwriters Laboratories, Northbrook, IL, 2001.

**ACADEMIC  
APPOINTMENTS**

- July 2009 – Present Associate Professor with Tenure (primary appt.),  
Department of Biomedical Eng., Case Western Reserve School of Eng.,  
**Case Western Reserve University**, Cleveland, OH.
- Jan 2005 – Present Associate Director (secondary appointment),  
Cleveland Advanced Platform Technology Center, Cleveland, OH  
**A National Center of Excellence of US Dept of Veterans Affairs**,  
Rehabilitation Research and Development Service
- July 2011 – July 2013 Vice-Chair for Undergraduate Education  
Department of Biomedical Eng., Case Western Reserve School of Eng.,  
**Case Western Reserve University**, Cleveland, OH.
- Jan 2002 – Present Principal Investigator (secondary appointment),  
Cleveland Functional Electrical Stimulation Center, Cleveland, OH  
**A National Center of Excellence of US Dept of Veterans Affairs**  
Rehabilitation Research and Development Service
- Jan 2007 – June 2009 Nord Distinguished Assistant Professor (primary appointment),  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.
- Aug 2004 – Dec 2006 Assistant Professor (primary appointment),  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.
- Aug 2003 – Aug 2004 Adjunct Assistant Professor,  
Department of Biomedical Engineering, Case School of Engineering,  
**Case Western Reserve University**, Cleveland, OH.
- NeuroControl Corporation, Cleveland, OH.**  
2001 – 2002 Manager, Software Engineering,  
1998 – 2001 Biomedical Engineer III,  
Research and Development,
- 1995 – Present **Bear Software, LLC**, Cleveland, OH  
Founder/President

**INDUSTRIAL  
APPOINTMENTS**

HONORS AND  
AWARDS

- **Carl F. Wittke Award** (Nominated), Excellence in UG Teaching, CWRU, 2012
- Nominated for BMES Society-Case Chapter, Outstanding BME UG Professor, 2011
- **Carl F. Wittke Award** (Nominated), Excellence in UG Teaching, CWRU, 2009
- **Nord Distinguished Assistant Professor**, Case Western Reserve Univ, 2007-2010.
- **Research Award**, Case School of Engineering, 2008
- **Undergraduate Teaching Award**, Case School of Engineering, 2008.
- **Nat'l Academies Keck Futures Initiative** – Smart Prostheses, 2006.
- **Scholarship 2<sup>nd</sup> Joint US-China Neural Interfaces Workshop**, Kunming, China, 2006
- **Outstanding Professor** by the Sisters of AXΩ, CWRU, 2006.
- **Whitaker Foundation Grad. Res. Fellowship**, CWRU, 1993-1998.
- **National Science Foundation Grad. Fellowship**, CWRU, 1993.
- **NIH Graduate Trainee Fellowship**, Case Western Reserve University, 1992-1993.
- **Michigan Technological Univ Scholar**, Michigan Technological Univ, 1988-1992.
- **Michigan Technological University Merit Award**, Michigan Tech Univ, 1992.

## PUBLICATIONS

**Notes:** *Supervised students and researchers indicated by bold face.*  
*Interdisciplinary studies indicated by [I].*  
*Translational studies indicated by [T].*  
*CV name is underlined (DJ Tyler) for ready identification.*

**Dissertation**

D. J. Tyler, "Functionally selective stimulation of peripheral nerves: Electrodes that alter nerve geometry," Ph.D., Case Western Reserve University, May 1999.

**Peer-Reviewed Journal Articles (reverse chronological order)**

1. **Schiefer, M.**, M. Freeberg, G. J. C. Pinault, J. Anderson, H. Hoyer, D. J. Tyler, and R. J. Triolo, "Selective activation of the human tibial and common peroneal nerves with a flat interface nerve electrode.," *J. Neural Eng.*, vol. 10, no. 5, p. 056006, Oct. 2013.
2. [T] **Fisher, L.E.**, Tyler, D.J. & Triolo, R.J. (2013), "Optimization of selective stimulation parameters for multi-contact electrodes.", *Journal of neuroengineering and rehabilitation*, vol. 10, pp. 25.
3. [T] **Hadley, A.J.**, **Kolb, I.** & Tyler, D.J. (2013), "Laryngeal elevation by selective stimulation of the hypoglossal nerve", *Journal of Neural Engineering*, vol. 10, no. 4.
4. [I] **Duke, A.R.**, **Peterson, E.**, **Mackanos, M.A.**, **Atkinson, J.**, Tyler, D., **Jansen, E.D.**, "Hybrid electro-optical stimulation of the rat sciatic nerve induces force generation in the plantarflexor muscles," *Journal of Neural Engineering* 9 (6) art. no. 066006, 2012, PMID: 23186608.
5. [T] **Schiefer, Matthew A.**, Dustin J. Tyler, Ronald J. Triolo, "Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat interface nerve electrode," *J Comp Neurosci*, 2012, 33(1), 179-190, PMID: 22222951.
6. [I] **Capadona, J. R.**, Tyler DJ, Zorman CA, Rowan SJ, Weder C, "Mechanically adaptive nanocomposites for neural interfacing," *MRS Bulletin*, 2012, 37(6), 581-589.
7. [T] Broniatowski M, Grundfest-Broniatowski S, **Hahn EC**, **Hadley AJ**, Tyler DJ, Tucker HM, "Selective intraoperative stimulation of the human larynx," *Laryngoscope*. 2012 Sep;122(9):2015-22. doi: 10.1002/lary.23464. Epub 2012 Aug 9, PMID: 22886746.
8. [T] **Schiefer, Matthew A.**, Dustin J. Tyler, Ronald Triolo, "Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat interface nerve electrode," *J Comput Neurosci*, Epub 2012 Jan 6, PMID: 22222951, PMCID: PMC3357453
9. [I] **Harris, James P.**, Jeffrey R Capadona, Robert H Miller, Brian C Healy, Kadiravan Shanmuganathan, Stuart J Rowan, Christoph Weder, Dustin Tyler, "Mechanically adaptive intracortical implants improve the proximity of neuronal cell bodies," *J Neural Eng*. 2011 Dec;8(6):066011. Epub 2011 Nov 2. PMID: 22049097, NIHMSID: 337131.

10. **Peterson, Erik J., Olivier Izad, Dustin Tyler**, “Predicting axon activation using extracellular field shape characteristics,” *J Neural Eng.* 2011 Aug;8(4):046030. Epub 2011 Jul 13. PMID: 21750371, PMCID: PMC3197268.
11. **[I] Harris, James P., Allison E Hess**, Stuart J Rowan, Christoph Weder, Christian A Zorman, **Dustin J Tyler**, and **Jeffrey R Capadona**, (2011) “*In-vivo* deployment of mechanically adaptive nanocomposites for intracortical microelectrodes,” *J Neural Engineering*, 8(4):046010. PMID: 21654037, NIHMSID: 337132.
12. **[I] Hess, AE**, JR Capadona, K Shanmuganathan, S J Rowan, C Weder, **DJ Tyler**, and CA Zorman, (2011) “Development of a stimuli-responsive polymer nanocomposite toward biologically-optimized, MEMS-based neural probes,” *J of Micromechanics and Microengineering*, 21:054009.
13. Ackerman, D. Michael Jr., Christian Ethier, Emily L. Foldes, Emily R. Oby, **Dustin Tyler**, Matt Bauman, Niloy Bhadra, Lee Miller, Kevin L. Kilgore, (2011) “Electrical Conduction Block in Large Nerves: High Frequency Current Delivery in the Nonhuman Primate,” *Muscle and Nerve*, 43(6), 897-9, PMID: 21607972, PMCID: PMC3101373.
14. **[T] Broniatowski, M; NZ Moore**, S Grundfest-Broniatowski, HM Tucker, E Lancaster, K Krival, **AJ Hadley**, **DJ Tyler**, (2010), “Paced Glottic Closure for Controlling Aspiration Pneumonia in Patients with Neurologic Deficits of Various Causes,” *Ann Oto, Rhinol, & Laryngol*, 119(3), 141, PMID: 20392026, NIHMSID: 386704.
15. **[T] Schiefer MA, K Polasek**, RJ Triolo, GCJ Pinault, **DJ Tyler**, (2010) “Selective Stimulation of the Human Femoral Nerve with a Flat Interface Nerve Electrode,” *J Neural Eng*, 7(2), PMID: 20208125, PMCID: PMC2915830.
16. **[T] Broniatowski, M, Grundfest-Broniatowski S, Hadley AJ**, Shah NS, Barbu AM, Phillipbar SA, Strohl KP, Tucker HM, **DJ Tyler**, (2010) “Improvement of Respiratory Compromise through Abductor Reinnervation and Pacing in a Patient with Bilateral Vocal Fold Impairment,” *Laryngoscope*, 120(1), PMID: 19877193.
17. **[T] Polasek K, MA Schiefer**, R Triolo, G Pinnault, **DJ Tyler**, (2009) “Intraoperative Evaluation of the Spiral Nerve Cuff Electrode on the Femoral Nerve Trunk,” *J Neural Eng*, 6(6), PMID: 19901448, PMCID: PMC2927973.
18. **[T] Polasek K, H Hoyen, M Keith, DJ Tyler**, (2009) “Stimulation Stability and Selectivity of Chronically Implanted Multicontact Nerve Cuff Electrodes in the Human Upper Extremity,” *IEEE Trans Neural Sys Rehab Eng*, 17(5), PMID: 19775987, PMCID: PMC2927980.
19. **[T] Fisher L, J Anderson, DJ Tyler, R Triolo** (2009), “Chronic stability and selectivity of four-contact spiral nerve-cuff electrodes in stimulating the human femoral nerve,” *J Neural Eng*, 6, PMID: 19602729, PMCID: PMC2928075.
20. **[T] Schiefer MA, Polasek KH**, Triolo RJ, Pinault GC, **Tyler DJ**, (2009), “Intraoperative demonstration of selective stimulation of the common human femoral nerve with a FINE,” *Conf Proc IEEE Eng Med Biol Soc.*, 2009:610-3. PMID: 19963718.
21. Limnusun K, **Tyler DJ**, Mohseni P, (2009), “Integrated electronics for peripheral nerve recording and signal processing,” *Conf Proc IEEE Eng Med Biol Soc.*, 2009:1639-42. PMID: 19964764.
22. Grinberg Y, **MA Schiefer, DJ Tyler**, and KJ Gustafson, (2008) "Fascicular perineurium thickness, size, and position affect model predictions of neural excitation," *IEEE Trans Neural Syst Rehabil Eng*, 16(6), 572-581, PMID: 18990650, PMCID: PMC2918421.
23. **[T] Fisher L, M Miller, SJ Nogan, JA Davis, Jr., JS Anderson, LM Murray, DJ Tyler, R Triolo**, (2008) “Standing after Spinal Cord Injury with Four-contact Nerve-Cuff Electrodes for Quadriceps Stimulation: A Case Study,” *IEEE Trans Neural Eng and Rehab*, 16(5), 473-8, PMID: 18990650, PMCID: PMC2936226.
24. **[T] M. Broniatowski, S. Grundfest-Broniatowski, N.S. Zobenica, DJ Tyler**, (2008) “Artificial Manipulation of Voice in the Human by an Implanted Stimulator,” *Laryngoscope*, 118(10), 1889-93, PMID: 18758384.
25. **[I] J.R. Capadona, K. Shanmuganathan, DJ Tyler, S.J. Rowan, C. Weder**, (2008) “Stimuli-responsive polymer nanocomposites inspired by the sea cucumber dermis”, *Science*, 319 (5868), 1370, PMID: 18323449.

26. [T] **Schiefer MA**, R Triolo, DJ Tyler, (2008) "A Model of Selective Activation of the Femoral Nerve with a Flat Interface Nerve Electrode for a Lower Extremity Neuroprosthesis," *IEEE Trans Neural Sys Rehab Eng*, 16(2) 195, PMID: 18403289, PMCID: PMC2920206. (Cover)
27. [I] **J.R. Capadona**, O. van den Berg, L.A. Capadona, M. Schroeter, S.J. Rowan, D.J. Tyler, C. Weder (2007). "Self-Assembled Nanofiber Templates: A Versatile Approach for Polymer Nanocomposites," *Nature: Nanotechnology*, 2 (12), 765, PMID: 18654428. (Cover)
28. [T] **Polasek, K**, H Hoyen, M. Keith, DJ Tyler, (2007) "Human nerve stimulation thresholds and selectivity using a multi-contact nerve cuff electrode," *IEEE Trans Neural Eng and Rehab*, 15(1): 76, PMID: 17436879.
29. Broniatowski, M, S. Grundfest-Broniatowski, H. Tucker, DJ Tyler, (2007) "Artificial Voice Modulation in the Canine by Recurrent Laryngeal Nerve Stimulation: Electrophysiological Confirmation of Anatomical Data," *Annals of Otology, Rhinology & Laryngology* 2007;116(2):156-159, PMID: 17388239.
30. Tyler, DJ and D. M. Durand (2003). "Chronic response of the rat sciatic nerve to the flat interface nerve electrode." *Ann Biomed Eng* 31(6): 633-42, PMID: 12797612.
31. Tyler, DJ and DM Durand, (2002), "Functionally Selective Peripheral Nerve Stimulation with A Flat Interface Nerve Electrode," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 10(4), 294-303, PMID: 12611367.
32. [T] Broniatowski, M., S. Grundfest-Broniatowski, DJ Tyler, Scolieri P, Abbass F, Tucker HM, Brodsky S., (2001). "Dynamic laryngotracheal closure for aspiration: a preliminary report." *Laryngoscope* 111(11 Pt 1): 2032-40, PMID: 11801992.
33. Qi, H, Tyler DJ, and DM Durand, (1999), "Neurofuzzy adaptive controlling of selective stimulation for FES: a case study," *IEEE Transactions of Rehabilitation Engineering*, 7(2), 183-192, PMID: 10391589.
34. Tyler DJ and DM Durand (1997), "A Slowly Penetrating Interfascicular Nerve Electrode for Selective Activation of Peripheral Nerve Axons," *IEEE Transactions of Rehabilitation Engineering*, 5(1), 51-61, PMID: 9086385.

#### ***In Press***

#### ***Accepted with Revision***

#### ***Reviews and Unrefereed Articles***

1. Capadona, J.C., SJ Rowan, DJ Tyler, CA Zorman, C Weder, "Mechanically Adaptive Nanocomposites for Neural Interfacing," *MRS Bulletin*, 2011.
2. Tyler, D.J. and DM Durand, "Interfascicular Electrical Stimulation for Selective Activation of Surface and Deep Axon Populations," *IEEE Engineering in Medicine and Biology Magazine*, 13(4), pp. 575-583, 1994.

#### ***Book Chapters***

1. Tyler, D.J., "Neuroprostheses for management of dysphagia resulting from cerebrovascular disorders", in *Operative Neuromodulation - Volume 1: Functional Neuroprosthetic Surgery*. An Introduction, D.E. Sakas, B.A. Simpson, and E.S. Krames, Editors. 2009, Springer Verlag: New York.
2. Tyler, D.J., **K.H. Polasek** "Electrodes for the Neural Interface," in *Textbook of Neuromodulation*, E.S Krames, A. Rezai, P.H. Peckham, eds., 2009.

#### ***Abstracts and Professional Conference Presentations***

1. Tyler, D.J., Kolb, I., Thompson, P. & Hadley, A. 2012, "Electrical stimulation for the management of aspiration during swallowing.", Conference proceedings : ...Annual International Conference of the IEEE Engineering in Medicine and Biology Society.IEEE Engineering in Medicine and Biology Society.Conference, vol. 2012, pp. 2509-2512.
2. Peterson, E.J. & Tyler, D.J. 2012, "Activation using infrared light in a mammalian axon model.", Conference proceedings : ...Annual International Conference of the IEEE

- Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society Conference, vol. 2012, pp. 1896-1899.
3. Brill, N. & Tyler, D. 2011, "Optimizing nerve cuff stimulation of targeted regions through use of genetic algorithms.", Conference proceedings : ...Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society Conference, vol. 2011, pp. 5811-5814.
  4. Fisher, L.E., Anderson, J.S., Tyler, D.J. & Triolo, R.J. 2011, "Optimization of stimulus parameters for selective peripheral nerve stimulation with multi-contact electrodes.", Conference proceedings : ...Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society Conference, vol. 2011, pp. 3039-3042.
  5. Schiefer, M.A., Tyler, D.J. & Triolo, R.J. 2011, "Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat Interface Nerve Electrode.", Conference proceedings : ...Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society Conference, vol. 2011, pp. 4068-4071.
  6. Tyler, D.J., Peterson, E.J., Brill, N. & White, K. 2011, "Increased selectivity of clinical peripheral nerve interfaces", 2011 5th International IEEE/EMBS Conference on Neural Engineering, NER 2011, pp. 257
  7. Harris, SfN, 2011 Washington, DC
  8. **Koppaka, S, DJ Tyler**, "Force Required to Insert Probes into the Epineurial and Perineurial Membranes," Biomedical Engineering Society, Hartford, CT, 2011.
  9. Peterson, E.J., DJ Tyler, "Probabilistic Models of Peripheral Axon Activation," Biomedical Engineering Society, Hartford, CT, 2011.
  10. **[I] Harris JP, Capadona JR**, Shanmuganathan K, **Hess A**, Dunning J, Rowan S, Zorman C, Weder C, Tyler DJ, "Pliant Polymer Microprobes for Intracortical Electrodes," at BMES Conference in Pittsburgh, PA, October 2009.
  11. **[I] Harris, JP**, Capadona JR, Shanmuganathan K, Rowan SJ, Weder C, Tyler DJ, "Cortical Tissue Response to a Mechanically-Dynamic Polymer Nanocomposite," at 38<sup>th</sup> Annual Society for Neuroscience, Washington, DC, Nov 2008.
  12. **Syed Shah N**, Limnusun K, Mohseni P, Tyler DJ, "Synchronization of Laryngeal pacing with inspiration using Phrenic Electroneurogram Signals," at 2008 BMES Annual Fall Meeting, St. Louis, MO, Oct 2008.
  13. **[I] Hess, A. E.**, J. Dunning, **J. Harris, J. Capadona, K. Shanmuganathan**, D.J. Tyler, S. Rowan, C. Weder, C.A. Zorman, "Microfabrication of Mems-Based Neural Probes From a Bio-Inspired, Mechanically Dynamic Polymer Nanocomposite," at AVS International Symposium and Exhibition, October 21, 2008, Boston, MA. (*Winner of Young Investigator Award and one of the best papers in the Young Investigator category*).
  14. **[I] J. Capadona, K. Shanmuganathan, J. Harris, A. Hess**, J. Dunning, C. Zorman, D. Tyler, S. Rowan and C. Weder, "Bio-inspired Mechanically-Dynamic Polymer Nanocomposites for Intracortical Microelectrode Substrates," in PRiME 2008, October 14, 2008, Honolulu, HI.
  15. Grinberg, Y., **M.A. Schiefer**, D. J. Tyler, K. J. Gustafson, "Physiologic fascicle size and perineurial thickness affect stimulation selectivity," in BMES Annual Fall Meeting. 2007. Los Angeles, CA.
  16. **[I] Harris, J.P., J.R. Capadona, K. Shanmuganathan**, S.J. Rowan, C. Weder, D.J. Tyler, "Insertion of Materials into the Cortex: Forces and Biological Reactions," in Neural Engineering & Rehabilitation Lectures, June, 2007. Cleveland, OH.
  17. Grinberg, Y., **M.A. Schiefer**, D. J. Tyler, K. J. Gustafson, "Effects of Fascicle Size and Perineurial Thickness on Stimulation Selectivity," in Neural Engineering & Rehabilitation Lectures, June, 2007, Cleveland, OH.
  18. **[T] Schiefer, M.A., K.H. Polasek**, G.C. Pinnault, R.J. Triolo, D.J. Tyler, "Intraoperative Evaluation of the First Flat Interface Nerve Electrode for a Standing Neuroprosthesis," IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.

19. [T] **K.H. Polasek, Schiefer, M.A.**, G.C. Pinnault, R.J. Triolo, D.J. Tyler, “Intraoperative Evaluation of the Spiral Nerve Cuff Electrode for a Standing Neuroprosthetic,” IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.
20. [I] **Hess, A. E.**, J. Dunning, D. J. Tyler, C. A. Zorman, “Development of a Microfabricated Flat Interface Nerve Electrode Based on Liquid Crystal Polymer and Polynorbornene Multilayered Structures,” IEEE International Conference on Neural Engineering, Hawaii, May 2-5, 2007.
21. [I] **Hess, A.E.**, J. Dunning, D.J. Tyler, C. A. Zorman, “A Polynorbornene-Based Microelectrode Array For Neural Interfacing,” 14<sup>th</sup> International Conference on Solid State Sensors, Actuators, and Microsystems, Lyon, France, June 10-14, 2007.
22. **Polasek K**, Hoyen H, Keith M, Kirsch R, and Tyler D. Spiral Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, 28th Annual International Conference: IEEE Engineering in Medicine and Biology Society, New York City, NY USA, September 2006.
23. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. 28th International IEEE/EMBS Conference
24. **M.A. Schiefer**, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” Case Western Reserve University ShowCASE, Cleveland, OH, 2006.
25. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Biomedical Graduate Student Symposium, Cleveland OH, May 5, 2006
26. [T] **Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, BMES Annual Conference, Chicago, IL, October 17, 2006.
27. **Suresh, S, L. Smith**, D. J. Tyler, “Fascicular Anatomy of Upper Extremity Nerves for Neuroprosthesis Development,” Biomedical Engineering Society, Chicago, IL, Oct 2006.
28. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, PhD, Harvey M Tucker, MD, FACS, Christopher Green, Dustin J Tyler, PhD, "Artificial Voice Modulation in the Canine By Recurrent Laryngeal Nerve Stimulation: Electrophysiological Confirmation of Anatomical Data," Combined Otolaryngological Spring Meeting (COSM), American Laryngological Association, Chicago, IL, 2006.
29. **Polasek K**, Kirsch R, Sams C, Hoyen H, Keith M, and Tyler D. Implanted Nerve Cuff Electrodes for Arm Function in High Tetraplegia, presented at American Paraplegia Society Annual Conference, Las Vegas, NV USA, September 5-7, 2006.
30. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Interfaces Workshop, Bethesda MD, August 21-23, 2006
31. [T] **Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, NIH Neural Interfaces Conference, Bethesda, MD, August 28, 2006.
32. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Selectively Stimulating the Human Femoral Nerve with a Flat Interface Nerve Electrode. 37th Annual NIH Neural Prosthesis Workshop
33. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human Testing of Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Neural Engineering Research Lectures, Cleveland OH, June 2, 2006
34. [T] **Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, Neural Engineering and Rehabilitation Lectures, Cleveland, OH, June 6, 2006.
35. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. Neural Engineering and Rehabilitation Lectures

36. **M.A. Schiefer**, R.J. Triolo, D.J. Tyler (2006) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. 29th Annual Biomedical Graduate Student Symposium
37. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” Case Western Reserve University ShowCASE, Cleveland, OH, 2005.
38. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Research ShowCase, Cleveland OH, April 7, 2005.
39. **[T] Zobenica, N, J Huynh**, M Broniatowski, D. J. Tyler, “Clinical Trials of Laryngotracheal Closure for the Prevention of Aspiration in Dysphagia”, Case ShowCase, Cleveland, OH, April 5, 2006.
40. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Chronic Human testing of Nerve Cuff Electrodes for an Upper Extremity Neuroprosthesis, presented at Case Biomedical Engineering Research Day, October 15, 2005.
41. **M.A. Schiefer**, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler (2005) Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics. BME Research ShowCASE
42. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, Harvey M Tucker, MD, FACS, Dustin J Tyler, PhD, " The Case For Electronic Manipulation Of The Larynx In Voice Disorders," London UK Royal Academy of Music, London, Sept., 2005.
43. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Prosthetics Workshop, Bethesda MD, Sept 7-9, 2005.
44. **Polasek K**, Hoyen H, Keith M, Kirsch R, and Tyler D. Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, presented at 10th Annual Conference of the International FES Society, Montreal, Canada, July 6-9, 2005.
45. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” 10th Annual Conference of the International Functional Electrical Stimulation Society, Montreal, Quebec, CA, 2005.
46. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Neural Engineering Research Lectures, Cleveland OH, June 3, 2005.
47. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” Neural Engineering and Rehabilitation Day, Cleveland, OH, 2005.
48. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, presented at IEEE Conference on Neural Engineering, Washington D.C., March 16-19, 2005.
49. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” 2nd International IEEE/EMBS Conference on Neural Engineering, Washington, DC., 2005.
50. **Huynh, J. C., N. S. Zobenica**, Michael Broniatowski, Dr. Dustin Tyler, “Reduction of Aspiration through Stimulation of the Recurrent Laryngeal Nerves: A Chronic Analysis” – Neural Interfaces Workshop, Bethesda, Maryland, 2005
51. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler (2005) Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems. ShowCASE (highlight of research at Case Western Reserve University)
52. **M.A. Schiefer**, K.J. Gustafson, R.J. Triolo, D.M. Durand, D.J. Tyler “Models of Selective Stimulation with a Flat Interface Nerve Electrode for Standing Neuroprosthetic Systems,” 28th Annual Biomedical Graduate Student Symposium, Cleveland, OH, 2005.
53. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler “Modeling Selective Stimulation with a FINE for Standing Neuroprosthetics,” BMES Annual Conference, Baltimore, MD, 2005.

54. **Polasek K**, Kirsch R, Hoyen H, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at NIH Neural Prosthetics Workshop, Bethesda MD, Nov 15-17, 2004.
55. **Polasek K**, Hoyen H, Kirsch R, and Tyler D. Intraoperative Testing of Selectivity of Spiral Nerve Cuff Electrodes, 26th Annual International Conference: IEEE Engineering in Medicine and Biology Society, San Francisco, CA USA, September 2004.
56. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Neural Engineering and Rehabilitation Day, Cleveland OH, August 27, 2004.
57. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D. Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses, presented at Research ShowCase, Cleveland OH, April 2, 2004.
58. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D, "An Installation Tool for Nerve Cuff Electrodes," Neural Engineering and Rehabilitation Day, Cleveland OH, September 12, 2003.
59. **M.A. Schiefer**, R.J. Triolo, K.J. Gustafson, D.J. Tyler "Optimized Contact Location on a Flat Interface Nerve-Cuff Electrode for Use in Standing Neuroprosthetic Systems," Neural Engineering and Rehabilitation Day, Cleveland, OH, 2004.
60. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D, "An Installation Tool for Nerve Cuff Electrodes," MetroHealth Medical Center Research Days, Cleveland OH, September 11-13, 2003.
61. **Polasek K**, Kirsch R, Hoyen H, Keith M, and Tyler D, "Intraoperative Testing of Selective Nerve Cuff Electrodes for Neuroprostheses," NIH Neural Prosthetics Workshop, Bethesda MD, October 21-23, 2003.
62. **M.A. Schiefer**, R.J. Triolo, D.M. Durand, D.J. Tyler "Optimized Contact Location on a Flat Interface Nerve-Cuff Electrode for Use in Standing Neuroprosthetic Systems," 35th Annual NIH Neural Prosthesis Workshop, Washington, DC., 2004.
63. Michael Broniatowski, MD, FACS, Sharon Grundfest-Broniatowski, MD, FACS, Dustin J Tyler, PhD, Harvey M Tucker, MD, FACS, Sheryl Brodsky, MA-CCCP/SLP, "A Human Laryngeal Pacemaker: Dynamic Laryngotracheal Closure for the Control of Aspiration," 7th International Workshop on Voice Surgery and Voice Care. Paris, France, 2002.
64. Tyler, DJ, Broniatowski, M., Grundfest-Broniatowski, S., Brodsky, S., "Recurrent Laryngeal Nerve Stimulation To Reduce Aspiration: Demonstration Of Clinical Feasibility," IFESS Meeting, Cleveland, OH, 2001.
65. Broniatowski, M, Grundfest-Broniatowski, S, Tyler, DJ, Tucker, HM, Scolieri, P, Brodsky, S, "Clinical use of an implanted pacemaker for aspiration. A Preliminary Report," 104th Annual Meeting of the American Laryngological, Rhinological, and Otological Society, Palm Desert, CA, 2001.
66. Tyler, DJ and DM Durand, "Small, Asymmetric Force Applied to a Peripheral Nerve: Chronic Effects of Nerve Reshaping Electrodes," Annals of Biomedical Engineering, 26 (S1), S-132, 1998.
67. Tyler, DJ and DM Durand, "Alteration of Nerve Geometry for Selective Stimulation," Proc. of IEEE-EMBS 19th Int'l Conference, Chicago, IL, USA, 1997.
68. Qi, H, DJ Tyler, and DM Durand, "NeuroFuzzy Adaptive Control of Selective Stimulation: A Case Study," 2nd International Functional Electrical Stimulation Society Conference, Vancouver, Canada, 1997.
69. Tyler, DJ and DM Durand, "Functional Peripheral Nerve Recruitment from a Flat Interface Nerve Electrode," 1st International Functional Electrical Stimulation Society Conference, Cleveland, Ohio, 1996.
70. Tyler, DJ and DM Durand, "Selective Stimulation with a Chronic Slowly Penetration Interfascicular Nerve Electrode," Proc. of IEEE-EMBS 18th Int'l Conference, Amsterdam, Netherlands, 1996.
71. Tyler, DJ and DM Durand, "Electrodes that Alter Peripheral Nerve Geometry to Enhance Functional Selectivity of Peripheral Nerve Stimulation," Biomedical Engineering Research Day, Case Western Reserve University, Cleveland, OH, 1996.

72. Tyler, DJ and DM Durand, "Combined Modulation of Pulse Width and Pulse Amplitude to Enhance Functional Selectivity of Neural Stimulation," Proc. of IEEE-EMBS 17th Int'l Conference, Montreal, Quebec, Canada, 1995.
73. Tyler, DJ and DM Durand, "Selective Activation of Fasciculated Peripheral Nerves by an Interfascicular Electrode," Engineering Foundation Conference on Neural Prostheses, Motor Systems IV, Mt. Sterling, Ohio, 1994.
74. Tyler, DJ and DM Durand, "A Method of Quantifying Electrode Performance Based on Non-Invasive Three dimensional Isometric Torque Data," Proc. of IEEE-EMBS 16th Int'l Conference, Baltimore, MD, 1994.
75. Tyler, DJ and DM Durand, "Design and Acute Tests of a Slowly Penetrating Interfascicular Nerve Electrode," Biomedical Engineering Research Day, Case Western Reserve University, Cleveland, OH, 1994.
76. Tyler, DJ and DM Durand, "Design and Acute Test of a Radially Penetrating Interfascicular Nerve Electrode," Proc. of IEEE-EMBS 15th Int'l Conference, San Diego, CA, 1993.

### ***Invited Professional Presentations***

1. Tyler, D.J., "Peripheral Nerve Interfaces: Advanced Development and Clinical Implementation," Invited talk, Boston University, 1/24/2013.
2. Tyler, D.J., "Electrical Stimulation for the Management of Aspiration during Swallowing," Invited talk at 34<sup>th</sup> Annual International Conference: IEEE Engineering in Medicine and Biology Society, San Diego, CA, 2012.
3. Tyler, D.J., "Mechanically Dynamic Nanocomposite Materials: *In-vivo* Properties and Cortical Tissue Response," Invited speaker at Fall Material Research Society Meeting, Session R: Flexible electrodes, Boston, MA, Nov 2011.
4. Tyler, D.J., "Interfaces at the Nanoscale," Keynote at Nanobio Europe, June 2011, Cork, Ireland.
5. Tyler, DJ, "Advanced Neural Interfaces for Functional Electrical Stimulation and Rehabilitation Systems," IEEE-Neural Engineering Conference, Cancun, Mexico, 2011.
6. Tyler, DJ, "Computational modeling in peripheral nerve electrode design," Neural Interfaces Conference, Los Angeles, CA, 2010.
7. Tyler, DJ, "Dynamic Materials for Cortical Probes," Spring Material Research Society Meeting, San Francisco, 2010.
8. Tyler, D.J., "GLSC101: How to Make a Superhero," BioMedTech Distance Learning Program, Great Lakes Science Center, Oct. 21, 2009. (Video link: [http://www.greatscience.com/biomed\\_tech/distance\\_learning.php](http://www.greatscience.com/biomed_tech/distance_learning.php))
9. Tyler, D.J., "Bioelectrical Interfaces at the Nanoscale," Cleveland Neural Prosthesis Seminar, April, 2009. (Video link: <http://www.youtube.com/watch?v=1UB5FPJBTgE>)
10. Tyler, D.J., "Bioelectrical Interfaces at the Nanoscale," Abiotic/Biotic Interfaces Workshop as part of the NIH Roadmap Nanomedicine Initiative and the Trans-NIH Nano Task Force, Natcher Conference Center, NIH Campus, April 8, 2009.
11. Tyler, D.J., "Direct Sensory Feedback," Panelist on Neurotechnology for Sensory Restoration for Prosthetic Limbs, Neural Interfaces Conference, Cleveland, OH June 18, 2008.
12. Tyler, D.J., "Selective Peripheral Nerve Stimulation in Human Subjects," Biomedical Engineering Society, Los Angeles, CA, September 28, 2007.
13. Tyler, D.J., "Clinical Progress in Peripheral Nerve Electrodes," Biomedical Engineering Society, Chicago, IL, 12 October 2006.
14. Tyler, D.J., "Clinical Implementation of Peripheral Nerve Stimulation," Panther Grand Rounds, University of Pittsburgh, 20 Sept 2006.
15. Tyler, D.J., Department of Biomedical Engineering, Univ of Texas, Dallas, 25 June 2006.
16. Tyler, D.J., "Stimulus-responsive, Mechanically-dynamic Nanocomposite for Cortical Electrodes," Materials Research Society – Electrobiological Interfaces Symposium, San Francisco, CA, April 2006.

17. Tyler, D.J., "Electrical Stimulation for Dysphagia Management following Stroke," 7th Meeting of the International Neuromodulation Society, Rome, Italy, June 2005.
18. Tyler, D.J. , "New Strategies for Treatment of Dysphagia after Stroke," Scientific Basis of Neurorehabilitation for Spinal Cord Injury and Stroke, American Society of Neurorehabilitation, Cleveland, OH, Aug 2003.

***Selected Popular Media and Notable Blog Coverage (of many)***

1. WKSU-NPR, Radio
2. 2011 Medcity news
3. "Ohio med-device start-ups win grants," MedCity News, May 24, 2010, (Link: <http://www.massdevice.com/news/ohio-med-device-start-ups-win-grants>)
4. "How to rewire the nervous system," The Economist – Quarterly Technology Review, Sept 2, 2010, London, (Link: [http://www.economist.com/node/16909945?story\\_id=16909945&fsrc=rss](http://www.economist.com/node/16909945?story_id=16909945&fsrc=rss))
5. Campbell MacGregor, "Paralysed limbs revived by hacking into nerves," New Scientist, Issue 2754, April 2010, (Link: <http://www.newscientist.com/article/mg20627546.200-paralysed-limbs-revived-by-hacking-into-nerves.html>)
6. <http://gizmodo.com/5508116/hacking-nerves-to-revive-paralyzed-limbs>
7. <http://www.popsci.com/science/article/2010-04/nerve-hacking-restores-movement-paralyzed-limbs>
8. <http://www.medcitynews.com/2010/05/psoriasis-treatment-throat-stimulating-device-get-25k-grants/?edition=ohio>

RESEARCH

***Research Interests***

- Translation of neural interfaces to clinical implementation and commercial success
- Neural interfaces for somatosensory function restoration
- Neuroprosthesis for dynamic control of aspiration, design and clinical implementation
- Neuroprosthesis design and implementation, particularly nerve electrodes, for restoration of function in SCI and Stroke patients
- Biomimetic, integrated neural interfaces, utilizing nano- and micro- fabricated systems

***Research Support (note that unsuccessful proposals are not included in the following lists)***

**Current Principal and Co-Principal Research Funding**

Title / Personnel	Source	Period	% Effort
Peripheral Interfaces in Amputees to Restore Sensation PI: D. J. Tyler	VA RR&D	4/01/14 – 03/31/18	38% CY
Exploiting Selective Recruitment to Prolong Standing after SCI Co-PI: Tyler (Co-PI: Triolo)	VA RR&D	2013-2017	20% CY
2R01NS3603 A primate model of an intra-cortically controlled FES prosthesis PI: Miller Tyler (Sub to Case)	NIH_NINDS	2011-2016	20% AY

**Current Co-Investigator Funding**

Title / Personnel	Source	Period	% Effort
C3819C Advanced Platform Technology Center PI: Triolo, (Tyler: Co-investigator)	VA RR&D	3/1/05- 2/28/15	20% CY
DARPA RE-NET Peripheral Interfaces with the Nervous System (PINS) PI: D. Durand	DARPA – CTO	2012-2015	20% AY

Title / Personnel	Source	Period	% Effort
Co-I: Tyler and Mohseni			
Neural Interfaces for Amputee Prosthetics PI: R. Kirsch	TATRC	2007-2013	10% CY

**Current Equipment and Educational Funding**

Title / Personnel	Source	Period	% Effort
Associate Investigator Career Development Award - 1 Allison Hess, Ph.D. Primary Mentor: D. J. Tyler	VA	07/01/13 – 06/30/15	n/a
Associate Investigator Career Development Award - 1 Matthew Schiefer, Ph.D. Primary Mentor: D. J. Tyler	VA	09/01/12 – 08/31/14	n/a
1 R25 EB014774-01 Multi-disciplinary, Undergraduate Design Teams to Meet Healthcare Needs PI: D. J. Tyler, support for educational design experiences	NIH	04/01/2012-03/31/2017	n/a
CREATE Summer Design Experience	Case Alumni Association	01/01/08-12/31/13	n/a

**Pending Principal and Co-Principal Research Funding**

Title / Personnel	Source	Period	% Effort
Impact of Device Mechanics on Neural Tissue Response and Electrophysiology PI: D. J. Tyler	NIH/NINDS	4/01/14 – 03/31/18	30% AY
2R01EB001889 Renewal Enhancing Neuroprosthesis Performance with Nerve Cuff Electrodes Co-PI: Triolo / Tyler	NIH - NIBIB	4/01/14 – 03/31/18	30% AY

**Pending Co-Investigator Funding**

Title / Personnel	Source	Period	% Effort

**Pending Equipment and Educational Funding**

Title / Personnel	Source	Period	% Effort

**Completed Principal Research Funding**

Title / Personnel	Source	Period	% Effort
2R01EB001889 Enhancing Neuroprosthesis Performance with Nerve Cuff Electrodes PI: Triolo	NIH - NIBIB	09/25/03-06/30/13	12% AY
Hybrid laryngotracheal stimulation for management of aspiration	Coulter Foundation	2010-2013	15% AY
A6156R Neural Interfaces for Prosthetic Sensory Feedback PI: D. J. Tyler, 1 Grad Student, Clinical personnel	VA RR&D	07/01/09 – 06/30/12	52% CY
Industry Sponsored Research Hybrid Electro-optical Stimulation of Peripheral Nerves PI: D. Tyler; 1 Graduate Student	Lockheed-Martin-Acculite	11/01/09 – 11/30/12	5% AY
R21 NS058705 Peripheral Nerve Implementation of Functional Neuroprostheses	NIH – NINDS/NINDS	06/01/07-05/31/11	12% AY, 0% Sum

Title / Personnel	Source	Period	% Effort
PI: D. J. Tyler; 1 Graduate Student			
R21 NS053798 Stimulus-responsive, Mechanically-dynamic Nanocomposite for Cortical Electrodes PI: D. J. Tyler; 1 Grad Student, 1 Post-doc	NIH - NINDS	07/01/06-06/30/10	10% AY, 0% Sum
B3258R Dynamic Laryngotracheal Closure Using BION Technology PI: D. J. Tyler, 1 Grad Student, 1 UG Student	VA RR&D	10/1/04-9/30/08	30% CY
VA Research Initiation Program Topography of the Nerves of the Tongue and Larynx for Neuroprostheses PI: D. J. Tyler	VA – VISN 10		n/a
R43NS38776 Stimulator to Prevent Aspiration, NeuroControl Corp PI: D. J. Tyler	NIH – NIBIB	1999-2000	30%

### Completed Co-Investigator Funding

Title / Personnel	Source	Period	% Effort
DARPA – CiPHER Center for Neurophotonics Research PI: M. Christensen (Southern Methodist Univ); PI: D. Tyler (sub to Case)	DARPA – CTO	08/01/10 – 07/31/12	20% AY
5R01NS032845 Nerve Reshaping for Improved Electrode Selectivity PI: Durand	NIH – NINDS	01/06/04 – 06/30/10	5% AY / 0% Sum
ECS-0621984 A Microfabricated Neural Electrode Array Technology for Long-Term Implant Applications PI: C. Zorman; Co-PI: D. Tyler	NSF – ECS	09/15/06 – 08/31/11	0% AY
1R01DC008429 Electrical Stimulation of the Bilaterally Paralyzed Larynx Paced with Respiration PI: D. Zealear (Vanderbilt); D. Tyler (sub to Case)	NIH - NIDCD	08/15/06 – 07/31/11	10% AY / 0% Sum
N01-NS-1-2333 Restoration of Hand and Arm Function by Functional Neuromuscular Stimulation PI: Kirsch	NIH	2003-2005	15% AY
5R21DC006703 Human Laryngeal Pacing for Aspiration PI: Broniatowski	NIH-NIDCD	2004-2007	12% AY
5R21DC006854 Dynamic Vocal Fold Abduction for Bilateral Paralysis PI: Broniatowski	NIH-NIDCD	2005-2008	12% AY

### Completed Equipment and Educational Funding

Title / Personnel	Source	Period	% Effort
Proprioception in rat cortex to examine sensory feedback for prosthetics Paul Marasco Primary Mentor: D. J. Tyler	VA RR&D CDA-2	2010-2012	
F31 NS063540 Macro/Micro Substrate Stiffness and Effect on Rat Brain Cortex James Harris Primary Mentor: D. J. Tyler	NIH-NINDS	2009-2011	n/a
Associate Investigator Career Development Award - 2 Jeffrey Capadona, Ph.D. Primary Mentor: D. J. Tyler	VA	05/01/08 – 04/30/10	n/a

Title / Personnel	Source	Period	% Effort
Associate Investigator Career Development Award - 1 Katharine Polasek, Ph.D. Primary Mentor: D. J. Tyler	VA	04/01/10 – 03/31/11	n/a
VA Career Development Award – 1 Jeffrey Capadona, Ph.D. Primary Mentor: D. J. Tyler	VA	2007-2008	n/a
SOURCE Summer Research Program Fascicular Anatomy of Upper Extremity Nerves for Neuroprosthesis Development Swetha Suresh Mentor: D. J. Tyler	Case	2006	n/a
SPUR (Summer Program in Undergraduate Research) Biocompatibility of Avatrill® Nora Lee Mentor: D. J. Tyler			

#### **Business Development – Bear Software, LLC**

Description	Funds
Great Lakes Innovation & Development Enterprise (GLIDE) Innovation Fund - Round “A” Pilot for Dysphagia Management Project	\$25,000

#### PROFESSIONAL SERVICE

#### ***Conference Organization and Service***

- Biomedical Engineering Society (BMES) Annual Fall Meeting, Session Co-Chair (with B. Wheeler), “Neural Control and Modeling,” Seattle, WA, September 2013.
- ClevelandNEW, Conference Chair, Cleveland, Ohio, USA, June 2011, June 2013.
- Session Chair, Sensory Neuroprostheses, Neural Interfaces Conference, Salt Lake City, Utah, June, 2012.
- Session Chair, Neural Tissue Engineering Track, BMES, Hartford, CT, 2011.
- IEEE-EBMS Engineering in Medicine and Biology Society, 32<sup>nd</sup> Annual International Conference, Track Chair, Track 9.6, “Safety and Medical Device Design”, Buenos Aires, Argentina, Sept. 2010.
- IEEE-EBMS Engineering in Medicine and Biology Society, 31<sup>st</sup> Annual International Conference, Track Chair, Track 9.6, “Safety and Medical Device Design”, Minneapolis, MN, Sept. 2009.
- IEEE-EBMS Engineering in Medicine and Biology Society, 31<sup>st</sup> Annual International Conference, Session Co-Organizer (with P. Mohseni), “Neural Recording”, Minneapolis, MN, Sept. 2009.
- Biomedical Engineering Society (BMES) Annual Fall Meeting, Session Co-Chair (with K. Gustafson), “Clinical Implementation of Medical Devices,” Pittsburgh, PA, October 2009.
- MBEC (Midwest Biomedical Engineering Conference) – Co-ops and Internships Panel Moderator, Cleveland, OH, 2007
- MRS (Material Research Society) – Annual Spring Meeting, San Francisco, CA: Invited Speaker, Session Chair (2006), Co-Organizer (with D. Kipke, S. Lacour, and B. Morrison) for Symposium U: “Advanced Materials for Neural Interfaces,” Session Chair (2007).
- IEEE-EMBS Engineering in Medicine and Biology Society 28<sup>th</sup> Annual International Conference, Associate Editor, Track 10.0 Neural and Rehabilitation Engineering, and Neuromuscular Systems, New York, New York, Aug 30 – Sept 3, 2006

#### ***Proposal Review Panels***

- VA CDA Panel, Fall 2012
- NIH CSR R25 Panel, Biomedical Engineering Design Education, Fall 2012.
- PVA Panel, Fall 2012.

- NIH Center for Scientific Review Special Emphasis SSS-5, Muscular, Skeletal, and Dental Integrated Review, Feb 2002 – Feb 2004
- NIH Center for Scientific Review BDCN-MRS, Invited Temporary Member, March 2004.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2005
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (16 M), “Clinical Neuroscience and Disease,” March 2005
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2005.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Oct 2005.
- NSF Mail Review, Dec 2005.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Nov 2006.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-K (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2007.
- Dept. Veteran’s Affairs RR&D Ad Hoc Special Emphasis Panel, March 2007.
- NIH Center for Scientific Review Special Emphasis Panel ZNS1 SRB-M (44), “NINDS K99 Award Review Panel,” March 2007.
- Shriner’s Hospital System, CURE, invited review, August 2007.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Oct 2007.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” Feb 2008.
- NIH Center for Scientific Review Special Emphasis Panel BDCN-E (10), “Clinical Neurophysiology, devices and Neuroprosthetics,” June 2008.
- NIH Center for Scientific Review Special Emphasis Panel ETTN-A (03), “Neural Technology,” July 2008.

#### ***Ad Hoc Grant Proposal Reviews***

National Science Foundation (NSF)

National Institutes of Health (NIH)

Dept. of Veteran’s Affairs, Rehabilitation Research and Development (VA RRD)

#### ***Ad Hoc Journal Reviews***

Neuromodulation

IET Systems Biology

Biomaterialia

Archives of Physical Medicine and Rehabilitation

Journal of Neuroscience Methods

Clinical Anatomy (Wiley)

IEEE Trans BME (IEEE)

IEEE Trans Neural Sys and Rehab Eng (IEEE)

Journal of Rehabilitation Research and Development (VA)

Journal of Neural Engineering (IoP)

#### **PROFESSIONAL SERVICE**

#### ***Professional Societies***

IEEE Engineering in Medicine and Biology Society (1992-Present)

American Association for Advancement of Science (2001-Present)

Biomedical Engineering Society (2004 – Present)

Material Research Society (2005 – Present)

Tau Beta Pi (1990 – Present)

***Collaborations Outside of Case***

Lee Miller (Northwestern University)  
David Zealear (Vanderbilt University)  
Douglas Weber (University of Pittsburgh)  
Michael Broniatowski (University Hospitals)  
Ronald Triolo (VA Medical Center)  
Harry Hoyen (MetroHealth Medical Center)  
Michael Keith (MetroHealth Medical Center)  
Doug Shire (Cornell University)

***Committee and Other Service Assignments***

Case School of Engineering

CSE Strategic Planning Committee, 2012-Present.

CSE Budget Committee, 2009-2011, Chair 2011-2012

Department of Biomedical Engineering, Undergraduate Education Committee, Member, 2004-present  
(Responsible for redesigned BME Design Sequence; bioelectricity UG sequence chair;  
responsible for several undergraduate recruiting events; BME High School Scholarship cmt  
(2006); BME HS Visitor cmt.)

Chair of Student Recruitment Sub-committee of BME UGEC, 2007-2011.

BME Freshman contact, 2007 – Present.

BME Co-op Advisor, 2005 – Present.

BME Sages Advisor, 2006 – 2011.

Department of Biomedical Engineering, Judge, ShowCASE Poster competition, 2004.

ENGR 131 Oversight Committee, Member, 2006.

University-Wide

Faculty Senate Finance Committee, 2011-2013.

Member, University Strategic Planning Committee for Experiential Learning/Innovative Curriculum  
Task Force, 2008.

Co-Chair, Neural Engineering and Rehabilitation Lectures, Annual Conference, 2004 – Present. Co-  
organizer, Neural Prosthesis Seminar Series, 2002 – 2006.

VA Medical Center

Chair, Conflict of Interest Sub-Committee of R&D Committee, 2005-2008.

***Interdisciplinary Center and Research Group Affiliations***

Cleveland Functional Electrical Stimulation Center (FESC), Member, 2002 – Present.

Cleveland Advanced Platform Technology Center (APT), Associate Director, 2005 – Present.

Functional Neural Interface Lab (FNI), Director, 2004 – Present.

Neural Engineering Center (NEC), Member, 2002 – Present.

VA Neural Interfacing and Advanced Biomaterials Laboratory, Co-Director, 2006 – Present.

Judge, Hathaway-Brown School Science Fair, Feb. 2007, 2010.

Judge, St. Paschal-Baylon School Science Fair, Feb 2008, 2009, 2010, 2011, 2012, 2013.

Invited Speaker, Great Lakes Science Center, Educators Evening, October, 2007.

Invited Speaker, Great Lakes Science Center, April 2008.

UNIVERSITY  
SERVICE

LOCAL  
COMMUNITY  
SERVICE

## TEACHING

**Teaching** (*C = Coordinator, % indicates portion of overall course taught*)

Course Num	Term taught	% of course and role C=coordinator	Enrollment	Instr. Rating 5=E ... 1=P NR=not rated	Course Rating 5=E ... 1=P NR=not rated	# responses	Instructor rating last time taught by other instructor NA = not applicable	Course rating last time taught by other instructor NA = not applicable
EBME380	Fall 2004 (Reorg)	100% C	11	4.45	3.63	9	3.47	2.93
	Fall 2005	100% C	46	4.36	3.94	44		
	Fall 2006	100% C	49	4.29	3.9	42		
	Spr 2008	100% C	33	3.33	2.78	9		
	Spr 2009	100% C	55					
	Spr 2010	100% C	40					
	Spr 2011	100% C						
	Spr 2012	100% C						
	Spr 2013	100% C	96					
EBME370	Fall 2007 (New)	100% C	58	3.06	2.00	36	NA	NA
	Sum 2008	100% C	13	4.67	4.67	6		
	Fall 2008	100% C	95	3.42	2.77	40		
	Sum 2009	100% C	11	4.25	3.75	4		
	Fall 2009	100% C	71	3.83	3.31	29		
	Sum 2010	80% C	13	4.8	4.4	5		
	Fall 2010	100% C	70			26		
	Sum 2011	100% C						
	Fall 2011	100% C						
	Sum 2012	100% C	20					
	Fall 2012	100% C	74					
EBME309/359	Spr 2004	33%	53	2.92	2.52	36	4.89	4.42
	Spr 2005	40%	64	4.05	3.47	46		
	Spr 2006	50%	105	3.56	3.04	52		
	Spr 2007	100% C	102	3.28	2.7	72		
	Spr 2008	67% C	70	3.74	2.66	35		
	Spr 2009	67% C	122	3.75	2.71	59		
	Spr 2010	67%	106	3.69	2.34	45		
	Spr 2011	67%						
EBME407	Spr 2007 (Reorg)	40% C	5	4.00	4.00	4	NA	NA
	Spr 2008	40% C	14	3.41	3.29	8		
	Spr 2011	67% C						
	Spr 2013	67% C						
EBME105	Spr 2005		3 Proj.					
EBME310	Spr 2006	1 Lec	100					
	Spr 2007	1 Lec	120					
EBME313/314	Spr 2005	CAD Megalab	92					
	Fall 2005	CAD Megalab	55					
	Spr 2006	CAD Megalab	54					
EBME397	Spr 2008	1 Lec						

Course Num	Term taught	% of course and role C=coordinator	Enrollment	Instr. Rating 5=E ... 1=P NR=not rated	Course Rating 5=E ... 1=P NR=not rated	# responses	Instructor rating last time taught by other instructor NA = not applicable	Course rating last time taught by other instructor NA = not applicable
EBME398	Fall 2005	2 Lec						
	Spr 2006	2 Lec	1 proj.					
	Fall 2006	2 Lec	2 proj.					
	Spr 2007	2 Lec	1 proj.					
	Spr 2008		1 proj.					
EBME440	Spr 2005 (Advised in Dev of Course)	2 Lec						
	Spr 2006	1 Lec						
	Spr 2007	2 Lec						
	Spr 2008	2 Lec						
	Spr 2009	2 Lec						
	Spr 2010	2 Lec						
	Spr 2011	2 Lec						
	Spr 2012	2 Lec						
EBME507	Spr 2007	1 Lec						
EMAE398	Fall 2006		1 Proj (2 student)					
	Spr 2007		2 Proj (4 student)					
EMAE290	Spr 2007	1 Lec	Proj Adv.					
<b>AVERAGE</b>				<b>3.79</b>	<b>3.28</b>			

**Pre-tenure track teaching:**

Spring 2004: EBME 309: Modeling of Biomedical Systems (33%)  
EBME 359: Computer Simulation Laboratory (33%)

**Curriculum Development:**

Design: Reorganized the BME Design Curriculum  
F '07 New course, EBME 370 (Principles of Biomedical Design) 100%, C  
S '08 Reorganized EBME 380 (Design for Biomedical Engineers) 100%, C  
Neural Eng: F '06 / S '07 Reorganized Graduate Neural Eng Core, introduced new course,  
EBME407 (Neural Interfaces)

ADVISING AND  
TRAINING**Number of Undergraduate Advisees:**

Academic Year	Freshman	Sophomores	Juniors	Seniors
2004/2005		1		
2005/2006		2	2	
2006/2007		4	2	9
2007/2008	Freshman Rep	3	5	2
2008/2009	Freshman Rep	4	3	5
2009/2010	Freshman Rep	4	3	6
2010/2011	Freshman Rep	4	3	10
2011/2012	Freshman Rep	4	8	9

***Undergraduate research supervised:***

Academic Year	Name	Approx. Hrs/Wk	Year	Senior. Project?
Summer 2004	Amber Ballard (Univ Maryland Baltimore County)	40	Sr	N (P)
	Hareesh Singham (Case BME)	40	So	N (P)
	Chris Pulliam (Case BME)	40	Jr	N (P)
2004/2005	Nina Zobineca (Case BME)	20	So	N (P)
Summer 2005	Nina Zobineca (Case BME)	40	So	N (P)
	Swetha Suresh (Case BME)	40	Jr	N (P)
	Lauren Smith (Case BME)	40	Jr	N (P)
	Jason Hoellwarth (Case Biochemistry)	40	Jr	N (P)
	Joshua Cosidine (Case BME)	40	So	N (P)
	Alex Merlino (Case BME)	40	So	N (P)
	Ashley Mckee (Case BME)	10	Fr	N (P)
2005/2006	Nina Zobineca (Case BME)	20	So	N (P)
	Swetha Suresh (Case BME)	20	Jr	N (P)
	Lauren Smith (Case BME)	10	Jr	N (P)
	Jason Hoellwarth (Case Biochemistry)	15	Jr	N (P)
	Shefali Shah (Case BME)	20	Sr	Y (CR)
Summer 2006	Nina Zobineca (Case BME)	40	Sr	N (P)
	Swetha Suresh (Case BME)	40	Sr	N (P)
	Jason Hoellwarth (Case Biochemistry)	30	Sr	N (P)
	Shefali Shah (Case BME)	40	Sr	Y (CR)
	Nora Lee (Case BME)	40	Jr	N (V)
2006/2007	Nina Zobineca (Case BME)	20	Sr	N/Y (P/CR)
	Swetha Suresh (Case BME)	20	Sr	N/Y (P/CR)
	Jason Hoellwarth (Case Biochemistry)	5/20	Sr	N/Y (P/CR)
	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Avelino Javier (Case BME, Exchange student from Tecnológico de Monterrey – Mexico)	10	Sr	Y (CR)
	Nora Lee	20	Sr	Y (CR)
Summer 2007	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Carl Hacker (Case BME, Pre-med)	20	Jr	N (P)
	Josh Considine (Case BME)	20	Sr	N (P)
2007/2008	Ashley Mckee (Case BME)	5/10	So	N (V/P)
	Carl Hacker (Case BME, Pre-med)	20	Jr	N/Y (V/CR)
	Josh Considine (Case BME)	20	Sr	N (P)
2008/2009	Ashley Mckee (Case BME)	20	Jr	N (P)
2009/2010	Kevin White (Case BME)	20	Jr	N (V/P)
	Ilya Kolb (Case BME)	15	So	N (Scholarship)
2010/2011	Kevin White (Case BME)	20	Sr	N
	Ilya Kolb (Case BME)	20	Jr	N
	Christiane Mhanna (Case BME)	5	So	Y
	Paul Thompson (Case BME, Pre-med)	5	Jr	Y
	Harry Labrie (Case BME)	5	So	Y
2011/2012	Kevin White (Case BME)	20	MS	N

Academic Year	Name	Approx. Hrs/Wk	Year	Senior. Project?
	Ilya Kolb (Case BME)	20	BS/MS	N
	Christiane Mhanna (Case BME)	10	Jr	
	Timothy Martin (Case BME)	5	Fr	
	Xu (Joyce) Xuesho (Case BME)	10	Jr	Y
	Kaleigh Judson (Case BME)	5	Fr	
	Ritchie Phan (Case BME)	5	Fr	
	Raj Khosla (High School Student)	5	HS	
	David Zeng (High School Student)	5	HS	

***Graduate Students Advised (If student has graduated, degree date is indicated):***

Name	A=Academic (%)* R=Research (%)* *If co-advised with another faculty member	Indicate M.S. (Plan A or Plan B); Ph.D.; or Post-Doc	Student Start Date	Degree Date
Emily Graczyk	A/R (100%)	PhD	Fall 2013	
Xuesho (Joyce) Xu	A/R (100%)	BS/MS	Spr 2012	BS Spr 2013
JingLe Jiang	A/R (100%)		Fall 2010	Xfered to Dr. Taylor 8/2012
Elizabeth Hahn	A/R (100%)	MS (A)	Fall 2010	
Erik Peterson	A/R (100%)	MS (B) / PhD	Fall 2008	MS(B) 5/2011 PhD 5/2013 (Defense: 1/15/13)
	R&D at Great Lakes Neurotech: 2/13 - Present			
Smruta Koppaka	A/R (100%)	PhD	Fall 2008	PhD 1/2013 (Defense: 1/22/13)
Nemath Syed Shah	A/R (100%)	MS (B)	Sum 2007	
Aaron Hadley	A/R (100%)	PhD	Fall 2007	PhD Spr 2013
Daniel Tan	A/R (100%)	MS (B) / PhD	Fall 2007	MS(B) 8/2011
Natalie Brill	A/R (100%)	PhD	Fall 2007	
Olivier Izad	A/R (100%)	MS (Plan A)	Spr 2006	MS(A) 5/08
Allison Hess	R (50%)	PhD	Spr 2008	PhD 3/2011
Katharine Polasek	R (50%)	MS (Plan B)	Fall 2001	MS(B) 5/04
	A/R (100%)	PhD		PhD 8/07 (Successfully defended on 3/26/07)
		Post-Doc	Fall 2007	Left Spr 2010
	Assist. Prof. at Hope College, Kalamazoo, MI, 2010 - Present			
James Harris	A/R	PhD	Fall 2005	PhD 08/11
	Associate at Bay Computers in Providence, RI, 2011 – 2013 Post-Doc with Kasey Cullins, Brown Univ. 2013 - Present			
Nina Zobenica	A/R	BS/MS (Plan A)	Fall 2003	BS 5/07 MS(A) 5/07
	Resident Cleveland UH, Neurosurgery: 2012 - Present			
Matthew Schiefer	A/R	PhD	Fall 2003	PhD 5/09

Name	A=Academic (%)* R=Research (%)* *If co-advised with another faculty member	Indicate M.S. (Plan A or Plan B); Ph.D.; or Post-Doc	Student Start Date	Degree Date
Emily Graczyk	A/R (100%)	PhD	Fall 2013	
	Associate Investigator (CDA-1), LSDVAMC, 6/12 - Present			
Jeffrey Huynh	A/R	MS (Plan A)	Fall 2004	MS(A) 8/07
Edward Arguello	A/R	MS (Plan B)	Fall 2005	MS(B) 8/07
Emily Lahowetz	A/R	MS (Plan A)	Fall 2004	Transferred to Drs. Peckham / Kilgore Summer 2005
Sara McBride	A/R	MS (Plan A)	Fall 2005	Transferred to Dr. Knothe- Tate Summer 2006
Jeffrey Capadona	R	Post-Doc	Summer 2005	Spring 2005 (Georgia Tech)

### ***Other Thesis Guidance Committees***

Madhu Ravikumar (PhD)	Spr 2012 – Present	J. Capadona (A/R)
Kelsey Potter (PhD)	Spr 2010 – Present	J. Capadona (A/R)
Jaime McCoin (PhD)	Fall 2008 – Fall 2012	K. Gustafson (A/R)
Miranda Cullins (PhD)	Spr 2010 – Fall 2012	H. Chiel (A/R)
Allison Hess (PhD, EECS)	Spr 2008 – Spr 2011	C. Zorman (A/R)
Hyunjoo Park (MS/PhD)	Fall 2003 – Spring 2011	D. Durand (A/R)
Lee Fisher (MS/PhD)	Fall 2005 – Fall 2012	R. Kirsch / R. Triolo (A/R)
Gary Wu (MS/PhD)	Fall 2005 – Fall 2012	K. Bogie (R)
Christopher Pulliam	Fall 2005 – Spr 2013	R. Kirsch (A/R)
Wondi Testafyesus (PhD)	Fall 2002 - present	D. Durand (A/R)
Beth Lewandowski (PhD)	Fall 2002 – Spring 2009	K. Gustafson (A/R)
Tim Bruns (MS/PhD)	Fall 2005 – Spring 2009	K. Gustafson (A/R)
Brian Tomayko (MS – 2005)	Fall 2004 – Spring 2005	K. Gustafson (A/R)
Allison Hess (MS, EECS)	Spr 2006 – Spr 2008	C. Zorman (A/R)
Yanina Grinberg (MS, BME)	Fall 2005 – Spr 2008	K. Gustafson (A/R)
Kanokwan Limnusun (MS, EECS)	Fall 2006 – Spr 2008	P. Moshini (A/R)

### ***Undergraduate Student Summer Research (Funded)***

<i>Name</i>	<i>Year</i>	<i>Source</i>
Ilya Kolb	2010	Scholarship
Amanda Edwards	2010	NSF REU
Ilya Kolb	2009	Scholarship
Nina Zobenica	2005	Research Assistant (VA)
	2006	Research Assistant (VA)
Swetha Suresh	2005	Research Assistant
	2006	SOURCE Summer Research Program
Nora Lee	2006	SPUR Summer Program in UG Research
Jason Hoellwarth	2005	Research Assistant
	2006	Research Assistant
Lauren Smith	2005	Research Assistant

Joshua Considine	2005	Research Assistant
	2007	Research Assistant
Alex Merlino	2005	Research Assistant
Ashley Mckee	2005	Research Assistant
Amber Ballard	2004	BME Department

***Postdoctoral Researchers***

Allison Hess, Ph.D., May 2011 – Present  
 Katharine Polasek, Ph.D., May 2007 – May 2010, Presently Tenure track Assist. Prof. of BME at Hope College in Kalamazoo, MI.  
 Jeffery Capadona, Ph.D., Aug. 2005 – Aug. 2008, Presently Tenure track Assist. Prof. of BME at Case Western Reserve University.

***Professional Mentoring***

Allison Hess, Ph.D. (Cleveland VA Medical Center)  
 May 2011 – Present, Primary Mentor, Cleveland Associate Investigator  
 July 2013 - , Primary mentor for Career Development Award Level 1 (CDA-1) to start 7/2013  
 Matthew Schiefer, Ph.D. (Cleveland VA Medical Center)  
 Oct. 2012 – Present, Primary Mentor, Cleveland APT Associate Investigator and VA Career Development Award Level 1 (CDA-1)  
 Paul Marasco, Ph.D. (Cleveland VA Medical Center)  
 Aug. 2009 – 2012, Primary Mentor, Cleveland APT Associate Investigator and VA Career Development Award level 2, CDA-2  
 Jeffery Capadona, Ph.D. (Cleveland VA Medical Center)  
 Aug 2010 – Present, Tenure-track Assist. Prof. in BME at Case Western Reserve University  
 Aug. 2008 – 2011, Primary Mentor, Cleveland APT Associate Investigator and VA Career Development Award level 2, CDA-2  
 Aug. 2005 – 2008, Primary Mentor, Cleveland APT Associate Investigator and VA Career Development Award, CDA-1  
 Katharine Polasek, Ph.D., (Case Western Reserve Univ, Dept BME)  
 2010 – Present, Dr. Polasek is an Assist. Prof., BME, Hope College, Kalamazoo, MI.  
 Dec. 2009 – 2010, Primary Mentor, Cleveland APT Associate Investigator and VA Career Development Award, CDA-1  
 May 2008 – Dec. 2009, Primary Mentor, Musculoskeletal T32 Post-doctoral training fellow  
 Aug 2007 – May 2008, Primary Mentor, Post-doctoral training

***Medical Student Research Training***

Name:	Mentoring Role:	Dates
Tyler Gifford (Case School of Medicine)	Research Adviser	Summer 2006

***Student Advisee Awards***

Erik Peterson

- 2009-11 **T32 Pre-doctoral Training Award**

James Harris

- 2009 **F31 Mentored NIH Fellowship**
- 2008 **T32 Pre-doctoral Training Award**
- 2008 **ShowCase Poster Award** – Honorable mention for all posters at Showcase 2008

Natalie Brill

- 2008-10 **T32 Pre-doctoral Training Award**
- 2008 **ShowCase Poster Award** – Honorable mention for BME posters at Showcase 2008

- 2010 **ShowCase Poster Award** – First prize for all posters at ShowCase 2010

Aaron Hadley

- 2008 **ShowCase Poster Award** – Second prize for all posters at ShowCase 2008
- 2010 **ShowCase Poster Award** – Honorable mention for all posters at ShowCase 2010

Nemath Syed-Shah

- 2010 **ShowCase Poster Award** – Honorable mention for all posters at ShowCase 2010

Yanina Grinberg (Co-Advise with K. Gustafson)

- **BMES Undergraduate Research Award**, BMES Conf, Los Angeles, CA, Sept. 2007.

Matthew Schiefer

- 2008 **ShowCase Poster Award** – Honorable mention for BME posters at ShowCase 2008
- 2006 **Ohio Third Frontier Graduate Student Fellowship** - Awarded to Graduate Students conducting research in areas deemed important by the State of Ohio
- 2005, 2006 **Robbie Robinson Award** - 2nd Place PhD Poster Competition, Neural Engineering and Rehabilitation Day
- 2005 **Marcus Singer Award** - Best Poster Presentation, Biomedical Graduate Student Symposium
- 2003 **BMES Travel Award** - For presentation of PhD research at the BMES National Conference
- 2003 **Robbie Robinson Award** - 3rd Place PhD Poster Competition, Neural Engineering and Research Day

Katharine Polasek

- 2008 **T32 Post-doctoral Training Award**
- 2006 **Robbie Robinson Award** – 1<sup>st</sup> Place PhD Poster Competition, Neural Engineering and Rehabilitation Day
- 2004 **NIH Neural Prosthesis Workshop**, Travel award

Allison Hess

- 2008 **Young Investigator Award and best paper for Young Investigators at AVS International Symposium and Exhibition**, Boston, MA.

Jeffrey Huynh

- 2005-2006, **Medtronic Graduate Fellowship**.

Edward Arquello

- 2006 **NIH Neural Prosthesis Workshop**, Travel award

Nina Zobenica

- 2006 **NIH Neural Prosthesis Workshop**, Travel award

### ***Staff Management and Training***

<i>Name</i>	<i>Year</i>	<i>Project / Funding</i>	<i>My Role</i>
Donna Campbell	2013-	APT, Quality System Manager	Manager
Marija Rogonjic	2010-2012	APT, Administrative Assistant	Co-Manager
James Burger	2005-2011	APT, Director of Quality Systems	Manager
Brad Boggs	2005-2008	APT, Director of Engineering	Co-Manager
Jeremy Dunning	2005-2007	APT, Staff Engineer	Manager
Benjamin Cottrill	2004-2005	Ohio BRCP, Engineer	Co-Manager
	2006-2007	APT, Staff Engineer	Co-Manager
Scott Milinovich	2006-2008	Research Assistant, Development of an Anatomy Database	Manager
Crystal Antes	2006-2007	Research Assistant Upper Extremity Cadaver Anatomy	Manager